“How do Electronic Laboratory Notebooks Inspire Researchers?”
Poster presentation at MAC/MLA (Mid-Atlantic Chapter / Medical Library Association)
Annual Meeting, October 18-20, Asheville, NC
Virginia Pannabecker, Health, Life Sciences & Scholarly Communication Librarian
Virginia Tech University Libraries
Poster in VTechWorks institutional repository: http://hdl.handle.net/10919/56951

Selected References

Full reference list of literature review citations can be found in this Zotero Group and Library:
https://www.zotero.org/groups/electronic_laboratory_notebooks

General Reviews and Discussion of ELN


Historical Interest
(a few samples from the early years in ELN interest and development)

Finman, J., Fram, D. M., Kush, T., & Russell, C. H. (1983). An electronic laboratory notebook for VAX, PDP-11, and Professional 350 [microcomputers]. *DEC Professional, 2*(6), 120, 122, 124. “The main features of RS/1 are its user-friendliness and its integrated capabilities. Computer-naive engineers and scientists are taught RS/1’s basic data-handling techniques in a few hours, after which they are ready to enter, manipulate, and analyze their own data using simple English commands and without having to write programs.”

Fozard, A. (1977). Laboratory computer systems. *Laboratory Equipment Digest, 15*(8), 22-23. “The recently developed low price minicomputers and microprocessors allow modern product development laboratories to have ‘thinking’ electronic notebooks to help with the increasing workload arising from public demand for safety of manufactured products.”

Martz, D. (1993). Implementing an electronic notebook data entry system at Hudson Foods. *Scientific Computing & Automation, 9*(11), 15-16. “In the staff’s analysis, the Palm Top had five important characteristics. It used Lotus 1-2-3, a familiar industry standard with the ability to import and export data to many other applications. Its small size and light weight made it unobtrusive on the work bench and it was portable enough to fit into a chemist’s smock pocket. It was durable and Hewlett Packard had a reputation as a dependable manufacturer. Moreover there were support programs and utilities available from third party companies. Finally, its 1 MB of memory was more than enough to hold daily test data until it could be downloaded each evening.”

Themes

Research Data Management


Regulatory requirements


**Related - Exchangeable data formats**


**Metadata / Semantic Searching / Data Mining**


**Collaboration**

(While these two examples focus on collaboration, this is also a topic discussed in most other articles and postings on ELN, including other references in this handout.)


**Research Literature**

(Incorporation of research literature was occasionally mentioned in other articles, but this example places a strong focus on its usefulness as included within ELN usage.)


**Selected ELN Products**

*(Noted as used by or of interest for academic research, including a few major industry research ELN.)*

**Poster table in Google Sheets:** [http://bit.ly/1NhGqHC](http://bit.ly/1NhGqHC)

**Directory / Listing of ELN** (including additional products to those listed below in this handout)


CERF ELN (Also RSpace and eCAT)


*RSpace discussion included

Contur ELN - Accelrys - BIOVIA


Evernote


E-Workbook


http://pubs.acs.org/doi/pdfplus/10.1021/ci500469f


LabWare

http://www.atriumresearch.com/library/SC%20Feb%202012%20ELN%20in%20the%20Bioanalytical%20Laboratory.pdf

**Specialized ELN or LIMS (Laboratory Information Management Systems) related to Molecular Biology / Bioinformatics / Health / Biomedical / Medicine research**

ELN for Biologics


EMEN2

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3907281/


E-Workbook for Biology (IDBS)


Nanotechnology (experimental product in development)


NeuroScholar


PiMS